

# PATENT SPECIFICATION

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## (54) DOORS

(71) We, NEWBOURNE WATSON LIMITED, a British Company of Piccadilly, Bulwell, Nottingham, formerly of Trent Lane, Nottingham NG6 4FC, do hereby declare the invention for which we pray that a Patent may be granted to us and the method by which it is to be performed to be particularly described in and by the following statement:—

10 This invention relates to doors. A fitting, such as a hinge or catch is usually provided on a door by screwing a plate to an edge of the door and in some cases, such as with usual household doors, the door edge is countersunk, so that the plate is flush with the door surface. These normal joinery techniques are readily carried out with wooden doors, but are often not usable with other materials. A similar problem arises where a door is slightly bigger than the doorway prepared for it, when planing of a wooden door is usually carried out, but planing is not appropriate for example to polyurethane foam doors.

15 25 The present invention provides a door comprising a body formed as a plastics moulding and having an elongate wooden strip along an edge of the body the strip having at least one projection which is insert-moulded in the body. The projections may be defined by screws having heads projecting into the body, but, preferably, the strip is formed longitudinally with a dovetail defining a single projection for keying the strip to the body. Advantageously, two opposite edges of the door are defined by strips of wood. Conveniently, the body is a polyurethane foam moulding.

20 30 35 40 The invention enables a door to be easily manufactured with decorative panels by the moulding technique, whilst allowing the door to be mounted in the same way as a conventional wooden door.

45 One example of the invention is shown in the accompanying drawings, wherein:—

Figure 1 is sectional plan view of part of a door according to the invention.

Figure 2 is a front elevation of the door, and

Figure 3 is a sectional elevation of a lower part of the door on the line 3—3 of Figure 2. 50

In order to manufacture the door shown in the drawings, a mould is firstly prepared in this example from glass reinforced polyester resin lined with an aluminium alloy. The mould is prepared from a positive original, which may be made of wood or metal for example. The mould is then supported and adapted for injection moulding. 55

Two wooden strips of wood 11, 12 are provided at two opposite sides of the mould and extending the full length of the mould. Each strip is formed on one face with a dovetail 13 along its full length and the dovetails are faced towards one another in the mould. A foamable and polymerisable resinous material is then injected into the mould and allowed to foam and set. Preferably, a polyurethane foam material is used, which is cold setting. The resultant moulding 18 is keyed to the wooden strips by the dovetail and a skin 19 of the plastics material overlies the wood to conceal the latter at the main faces of the door. 60

The moulding is formed with decorative panels 15, which may carry motifs, and also with an integral weather board 16 formed in plastics material. The weather board is recessed for receiving a draught excluder 17 in the form of a rubber or rubber substitute strip. 65

If desired, the top and bottom edges of the door may be defined by wooden strips or, only one edge of the door may be formed with a wooden strip. 70

The plastics material may be moulded about a reinforcing core and the core may be a frame or solid core made for example of wood or reconstituted wood, such as chipboard. 75

## WHAT WE CLAIM IS:—

1. A door comprising a body formed as a plastics moulding and having an elongate wooden strip along an edge of the body, the strip having at least one projection which is insert-moulded in the body. 90

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2. A door according to claim 1, wherein the body includes a reinforcing core moulded therein.  
3. A door according to claim 1 or 2, wherein the or each projection is an integral part of the wooden strip.  
4. A door according to claim 3, wherein the projection is defined by a dovetail.  
5. A door according to any preceding claim wherein two opposite side edges of the door are provided with said wooden strips.

6. A door according to claim 2, wherein the body comprises a rigid foam plastics material moulded about a core of reconstituted wood.

7. A door constructed substantially as herein described with reference to the accompanying drawings.

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